EPA | GULF OF MEXICO PROGRAM

Protecting and Preserving
the Gulf of Mexico

2019 ANNUAL REPORT

Our Mission

EPA's Gulf of Mexico Program is focused on the health, productivity and restoration of the Gulf of Mexico and the communities that rely on this national resource.

Table of Contents

Message from the Acting Director

True dedication and hard work go hand-in-hand in charting a road map for protecting human health and the environment. FY 2019 served as a testament to GMP's dedication to the people we serve and waters we protect. We released two Notice of Funding Opportunities, thereby adding to the list of active projects, demonstrating innovative measures to improve water quality, to restore habitats, to increase environmental education and to promote community resilience. We became a major proponent of Trash-Free Waters and released a Request for Applications on September 23, 2019 to address trash prevention and removal and to support outreach/education.

GMP staff continue to serve as technical representatives and coordinators supportive of post *Deepwater Horizon* oil spill efforts. We, along with partners, are pioneering novel tools and practices critical to long-term recovery and restoration.

Our efforts would not have vigor without the support of diverse partners. We are eternally grateful for their support, and their belief in sound science and environmental stewardship.

This report is dedicated to our partners. Thanks for being on the front line of environmental protection, and to our staff, thanks for embracing new beginnings and exploring new heights.

Sincerely,

LaKeshia Robertson

Acting Director

Front row: Philip Lee, Colby McClain, Claudette Walker, LaKeshia Robertson, Calista Mills, Sharon Saucier, Clarence Nichols.
Middle row: Jerry Binninger, Rachel Houge, Kim Anderson, Matt Beiser, Jeanne Allen.
Back row: John Bowie, Troy Pierce, Gerry Martin, Kate Doering, Amy Newbold, Amanda Parisi, Kathryn Millard, Tripp Boone, Danny Wiegand, Phillip Singleton.

Who We Are

The Gulf of Mexico Program (GMP) is one of EPA's Great Water Body Programs whose geographic focus is on the major environmental issues of the Gulf of Mexico region and its watershed.

GMP is committed to voluntary, nonregulatory actions and solutions that are based on sound scientific and technical information as substantiated by our work with partners and the public.

Our program consists of two teams of experienced staff:

Science Integration and Analysis Team

Promoting and implementing science to benefit the Gulf of Mexico and its communities, this team assists Gulf of Mexico stakeholders by participating in activities such as collecting and testing water samples in the watersheds that flow into the Gulf to monitor water quality.

Partnerships Team

Encouraging positive behavioral practices and promoting awareness of resources, technologies and environmental practices or initiatives, this team works closely with Gulf partners to identify environmental concerns and provides up-to-date education on how shifts in behavior among Gulf stakeholders and tourists can effect change.

What We Do

The Science Integration and Analysis Team and the Partnerships Team work with Gulf of Mexico stakeholders to explore methods to:

- Support the assessment, development and implementation of programs, projects and tools that strengthen community resilience
- Protect, enhance and restore coastal and upland habitats within the Gulf of Mexico Watershed
- Promote and support environmental education and outreach to inhabitants of the Gulf of Mexico Watershed
- Restore and/or improve water and habitat quality to meet water quality standards in watersheds throughout the five Gulf states and the Mississippi River Basin

Active Investments

LOCATION	DOLLAR AMOUNT	AGREEMENTS
Mississippi	$6,590,336	16 Cooperatives, 1 EJ Small Grant
Iowa	$4,921,764	5 Cooperatives
Louisiana	$4,569,505	11 Cooperatives, 1 EJ Small Grant, 1 Interagency
Alabama	$3,245,746	12 Cooperatives
Florida	$2,987,664	11 Cooperatives
Texas	$1,766,635	8 Cooperatives
Virginia	$1,499,821	3 Cooperatives
Arkansas	$1,150,000	1 Cooperative
Tennessee	$500,000	1 Interagency
Georgia	$300,000	1 Cooperative
Oklahoma	$29,947	1 EJ Small Grant

Notice of Funding Opportunity Results

In 2018, GMP published two NOFOs:

- **EPA-GM-Cooperative-Agreements-2018-1** to address water quality improvement; coastal habitat and ecosystems enhancement, restoration and/or protection; environmental education and outreach; and community resilience in the Gulf of Mexico region and its watersheds.
- **EPA-GM-2018-FARMER** to support farmer-led organizations in program/project implementation focused on collaborating with farmers to demonstrate measurable results in improved water quality and/or habitat, in addition to farmer-to-farmer outreach and mentorship.

The high quality of proposals received through these NOFOs resulted in EPA utilizing FY 2018 funding (and FY 2019 funding) to fund 32 projects, for a total of $16.7 million! These resources are dedicated to improving the Gulf of Mexico Watershed. Examples of projects funded through our NOFOs can be found throughout this report.

4 Performance Measures

GMP works with each of the five U.S. Gulf Coast states and other stakeholders in the Gulf of Mexico Watershed including the six Mexican Gulf Coast states on projects that support the following priority areas:

Water Quality

GMP continuously works with Gulf Coast states to maximize efficiency and utility of water quality monitoring efforts for local managers. GMP supports efforts to improve water and habitat quality to meet water quality standards throughout the five Gulf states and Mississippi River Basin.

Target: Improve 2 water quality health indicators

Results: Improved indicators in 8 water bodies

Environmental Education and Outreach

These efforts are cornerstones to environmental stewardship. GMP's goal is to heighten citizens' appreciation of the Gulf, which leads to positive behavior practices. This can be accomplished by developing hands-on environmental initiatives and engaging residents in restoration programs/projects.

Target: Reach 6,000 individuals

Results: 43,734 individuals reached

Habitat Restoration

Through funding and partnerships, GMP is restoring habitat in the Gulf states, especially related to wetlands, coastal prairies and stream banks corridors. This work helps provide for protection from storm damage; supports commercial and recreational fisheries; provides nesting and foraging habitat for birds and other wildlife; protects pollinators; and improves water quality for recreational use and aquatic life.

Target: Restore 250 acres

Results: 381 acres restored

Community Resilience

Resilience is the capacity of human and natural systems to adapt to and recover from change. GMP supports community vulnerability assessments and the actions communities take to better position themselves to recover from coastal storms and adapt to the impacts resulting from changes in our environment.

Target: Reach 40 communities

Results: 45 communities reached

Water Quality

Engaging the Fishing Community to Remove Marine Debris and Quantify Impacts

Partners

- Mississippi State University Coastal Research and Extension Center
- Mississippi-Alabama Sea Grant
- Mississippi Coalition for Vietnamese-American Fisher Folks and Families
- Mississippi Commercial Fisheries United
- NOAA Marine Debris Program

Summary

Partners are working together to characterize and reduce the impacts of marine debris in the Mississippi Sound through the establishment of an incentive program to encourage fishermen to properly dispose of marine debris and through the recruitment and training of 20 commercial fishing crews to collect information on marine debris abundance, distribution and economic impact on the commercial fishing industry.

Results

53 participants in reward program

269 derelict traps recycled

20 shrimpers trained to collect data

St. Tammany Parish – Pollution Source Tracking in Abita River Watershed

Summary

The St. Tammany Parish Department of Environmental Services project aims to improve water quality in the Abita River Watershed through an aggressive course of action to consolidate wastewater treatment throughout the parish into regional treatment facilities. A decentralized management approach will provide an interim solution to improve water quality while wastewater regionalization progresses in the parish. Improvements in the Abita River Watershed will include dissolved oxygen increases resulting from the removal of the excess load of biological oxygen demand (BOD) and nutrients from failing Aerated Treatment Units (ATUs). Homeowners will be educated on proper operation and maintenance of their ATUs and on the economic benefits of their maintenance.

Partners

- St. Tammany Parish
- Lake Pontchartrain Basin Foundation

Results

82 failing ATUs restored

41,000 gallons of wastewater discharges improved

51 ATUs repaired reducing BOD load

Trash-Free Waters

Partners

- Mississippi State University
- City of Mobile
- Mobile Bay National Estuary Program
- Texas A&M University – Corpus Christi

Summary

Common trash from consumer goods makes up the majority of what eventually becomes marine debris, polluting our waterways and oceans. The persistence of plastics in the aquatic environment is of increasing concern because of its effect on the environment, wildlife and human health. "Removing trash, litter and garbage—including plastics—from marine and freshwater environments is one of EPA's highest priorities," said EPA Administrator Andrew Wheeler.

How is GMP supporting this priority?

- $5 million dedicated to funding innovative projects that encourage and facilitate the reduction and removal of trash that finds its way into waterways. The Request for Applications was released at the end of FY 2019. Projects will be located in the Gulf of Mexico Watershed in Texas, Louisiana, Mississippi, Alabama and Florida.
- Mississippi: Engaging the fishing community to remove marine debris and quantify impacts.
- Alabama: GMP funded the Mobile Bay National Estuary Program (MBNEP) to reduce the amount of stormwater-borne trash and litter by at least 4,800 pounds by installing prototype trash traps, or "Litter Gitters," at 10 strategically located stormwater outfalls in the Three Mile Creek Watershed. MBNEP has utilized the Escaped Trash Assessment Protocol at each Litter Gitter site to assess the condition of water quality and habitat and analyze constituent materials in collected trash and litter to determine weight, volume and probable sources. With this information, MBNEP is working with partners to implement a trash reduction campaign and an alternative packaging incentive program targeting five businesses determined to be sources of excessive trash and litter.
- Texas: "Greening" Oyster Reef Restoration in the Gulf. Texas A&M University recently received funding to compare ecological performance and cost benefits of biodegradable mesh alternatives to plastic mesh typically used in oyster reef restoration. This project will engage underserved (primarily Hispanic) populations in south Texas in habitat restoration activities.

For more information on EPA's Trash-Free Waters program, please visit: www.epa.gov/trash-free-waters

Results

8,469 pounds of trash removed

Habitat Restoration

Urban Communities Restore Swamp Forest

Partners

- Coalition to Restore Coastal Louisiana (CRCL) (grantee)
- Lake Pontchartrain Basin Foundation
- Restore the Mississippi River Delta Coalition
- New Harmony High School

Summary

During the life of the project, at least 25 acres of coastal swamp forest habitat in Port Manchac, Louisiana, near the city of New Orleans, will be restored or enhanced. Restoration will take place through engagement of approximately 300 volunteers in planting at least 5,000 native bottomland hardwood forest trees.

Partners and volunteers also engage in tree planting success monitoring. One innovative monitoring method being utilized is drone surveying to establish grown size and growth of planted trees. CRCL is also utilizing physical surveys, which require a person to physically measure and assess the health of a sample of trees planted.

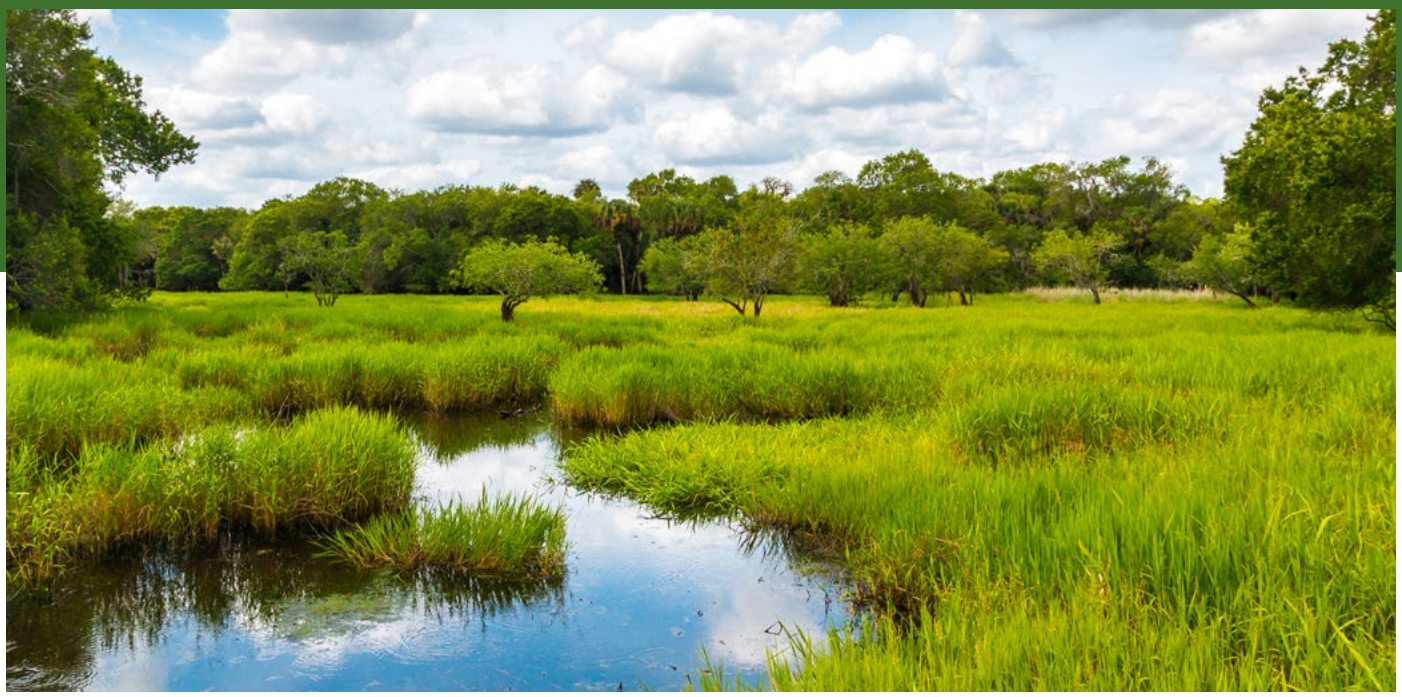
In addition, the project is utilizing multiple avenues of outreach to engage different sectors of the community, including underrepresented communities. Engagement has ranged from a bike tour of local water management and natural infrastructure projects to classroom presentations that discuss restoration-related career paths. Upcoming activities include additional planting events and community engagement activities.

Results

3,250 native trees planted

24 acres of habitat restored

111 individuals reached



Enhancing Coastal Habitat in the Gulf of Mexico by Identifying Innovative Practices in Mangrove Restoration for Multiple Ecosystem Services

Partners

- New College of Florida
- Sarasota Bay Estuary Program
- Tidy Island Condominium Association
- Local underserved (Title IV) high school students

Summary

EPA is funding a unique project with the New College of Florida (NCF), advancing EPA's strategic Goal 2: *A Cleaner, Healthier Environment*, by restoring the most extensive intact mangrove habitat on Tidy Island in the Sarasota Bay, an estuary of national significance. Mangroves provide valuable ecosystem services. However, spoil mounds from past mosquito ditching harbor exotic woody plants that are impossible to control without altering interconnected terrestrial and marine services. NCF will implement a novel experimental restoration to identify how alternative methods for exotic deadwood disposal alter mangrove carbon cycling, fish communities and native revegetation.

Anticipated Results

188 acres of enhanced habitat

75 underserved students engaged

13.5 acres of spoil ridges restored

4 acre subset planted with experimental revegetation

Weeks Bay Foundation Habitat Restoration and Community Outreach: Rio Vista and Rangeline Preserves

Partners

- Weeks Bay Foundation
- Student Conservation Association of GulfCorps

Summary

This project allowed the Weeks Bay Foundation to pursue unique approaches to habitat restoration and enhancement on two properties (Rio Vista and Rangeline) and open them up as sites for interpretive learning experiences. The Weeks Bay Foundation was able to remove invasive species, plant native trees and plants, remove trash, and do controlled burning on 95 acres in coastal Alabama. Through a firsthand immersive experience on these properties, visitors will better understand our coastal resources and will be more inclined to protect them. The creation of these two preserves, one in Baldwin County and one in Mobile County, will better educate and inspire community members.

Results

1,700 trees to be planted

95 acres restored

Environmental Education and Outreach

Rural Voices Radio: Gulf of Mexico

Partners

- Mississippi State University
- Mississippi Writing/Thinking Institute
- Stone High School, Wiggins, Mississippi
- North Bay Elementary School, Bay St. Louis, Mississippi
- Vancleave Upper Elementary School, Vancleave, Mississippi

Summary

Rural Voices Radio (RVR), a partnership between the Mississippi Writing/Thinking Institute and Mississippi Public Broadcasting, has been promoting children's authorship and reading performance on radio since 2003. The children write, expert teachers of writing respond to the writing, and children bring their revisions to the recording studio where they rehearse with a goal of clear articulation and expression. They record, often with proud parents snapping photos, in a state-of-the-art studio under the guidance of a supportive production engineer. They invite their friends and families to listen to RVR for the two-minute segments. The best part: They want to write and read for RVR again and again.

Results

16 years promoting student authorship

86 students reached

Through RVR, the voices of Mississippi students are heard throughout the state and in neighboring states, and across the country through the internet.

Coastal Connections – Environmental Education for Underserved Florida Fifth Graders

Summary

Nature's Academy offers free "edventure" programs to underprivileged and underserved fifth grade students in order to motivate their personal involvement in habitat preservation and to advocate sustainable approaches to the use and enjoyment of our natural resources. Title I schools lack the resources to attend optional field trips, so Nature's Academy provides bus transportation, field instruction, program materials and inspiration—everything essential for a best-in-class environmental education experience.

Partners

- Nature's Academy
- Manatee County Schools
- Pinellas County Schools

Results

5,587 underserved students engaged

138 cleanups performed

266 pounds of trash removed

118 public service announcements created

17,000 water bottles eliminated

Gulf Coast Stewards of Tomorrow: Working Toward a Sustainable Future Through At-Sea Learning for South Texas Middle and High School Students

Partners

- Texas A&M University, Department of Oceanography
- Corpus Christi Schools

Summary

This project is designed to educate young citizens on local environmental impacts and empower them to work toward improving the environment through stewardship.

Project goals:

- Educate young citizens on the impacts of nonpoint source pollution to Corpus Christi Bay, the importance of water conservation and stormwater sequestration, impacts of everyday actions on the acidity of estuaries and the coastal ocean, and how coastal ecosystems relate to the local economy.
- Empower teachers and students with knowledge to share with their community on the importance of being stewards of the environment.
- Create new classroom lesson plans that focus on the improvement of water quality, preservation of the marine habitat and coastal community resilience.

Results

1,373 students and adults attended

Using Problem-Based Learning to Build Water Quality Stewardship with Girl Scouts in the Gulf of Mexico Watershed

Summary

The University of Texas at Austin developed an environmental education and action-based environmental stewardship program focused on improving water quality in the Gulf of Mexico (GOM) Watershed with Girl Scouts in central and south Texas, particularly targeting underrepresented populations. Project activities include active-learning activities on topics related to water pollution in the GOM and actions for mitigating/preventing that pollution, activity plans for Girl Scout leaders to conduct these activities on their own, semester-long problem-based learning modules for in-depth scientific understanding of topics related to water pollution in the GOM, and cleanup days in beaches and parks in the GOM watershed.

Partners

- University of Texas at Austin
- Girl Scouts of Greater South Texas

Results

277 Girl Scouts educated

277 commitments made to water quality improvement

Community Resilience

Gulf TREE

Partners

- Gulf of Mexico Alliance
- Northern Gulf of Mexico Sentinel Site Cooperative
- Gulf of Mexico Climate and Resilience Community of Practice

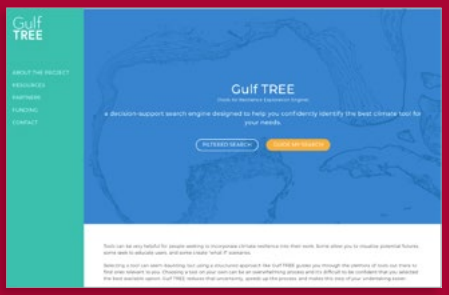
Summary

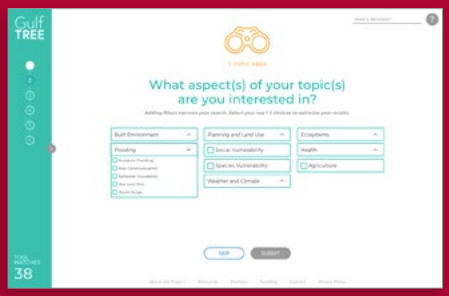
Gulf TREE (Tools for Resilience Exploration Engine) was created to fulfill the need for guidance in climate tool selection. It is a decision-support search engine designed to help organizations confidently identify the best climate tool for their needs.

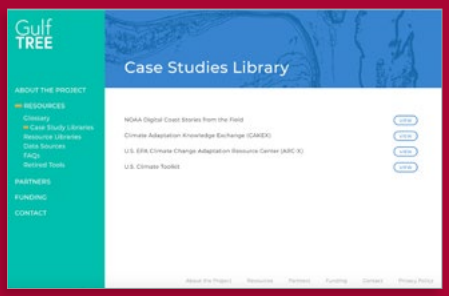
Stakeholders such as natural resource managers and community planners who understood the importance of incorporating climate resiliency into their projects struggled to find the right tool—the daunting process can be time-consuming, overwhelming and very confusing. Gulf TREE encourages further exploration in the realm of climate resiliency and thus provides a plethora of related resources.

Results

1,137 total sessions **4,500** unique webpage visitors **834** users improved their communities







Improving Coastal Resilience in the Northern Gulf of Mexico with a Regional Sediment Availability and Allocation Decision-Support Tool

Partner

- Gulf of Mexico Alliance

Summary

This project supports creation of the Northern Gulf Sediment Availability and Allocation Program (NGSAAP). It will compile existing data on available Gulf sediment resources and develop an ArcGIS-based decision-support tool to assist coastal stakeholders in Alabama, Mississippi, Louisiana and Texas in decision-making regarding habitat creation and restoration.

Anticipated Results

NGSAAP will link coastal restoration projects with the most appropriate and cost-effective sediment sources, improving the allocation of crucial sediment resources. It will support EPA's strategic plan by engaging a broad network of partners and coastal stakeholders to improve coastal resilience through better planning of restoration and protection projects.

Developing a Coastal Resilience Index for Use with Indigenous Communities in the Gulf of Mexico Region to Support Coastal Hazards Preparedness

Partners

- Louisiana State University
- Louisiana Sea Grant
- Pointe-au-Chien Indian Tribe

Summary

GMP, along with Louisiana Sea Grant and its project partners, will work with state-recognized Native American communities in Louisiana's Terrebonne and Lafourche parishes to evaluate and enhance their well-being and resilience to natural hazards. This pilot project will focus on creating a Coastal Resilience Index (CRI) customized for use with tribes across the five Gulf states.

Anticipated Results

Native American communities in Louisiana will work toward strengthening their resilience practices, and will use the CRI to help increase preparedness and long-term planning for natural hazards. This project will train facilitators on using the tool so tribes will be able to identify and implement resilience-enhancing solutions in their communities.

Strengthening Resilience Through Community-Based Flood Planning in Northwest Florida

Summary

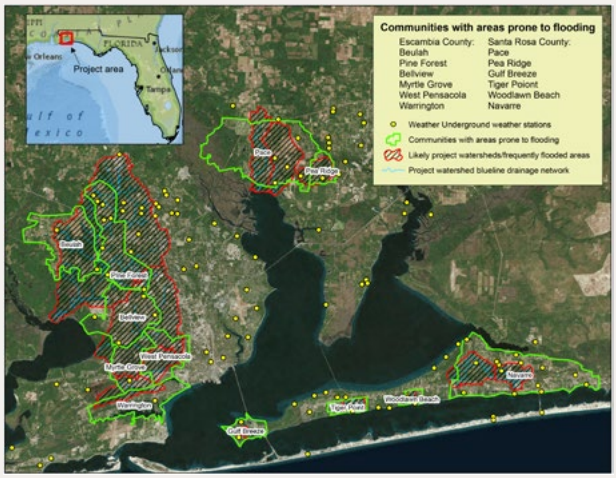
Gulf Coast communities are experiencing a higher frequency of flooding caused by extreme rain events, resulting in economic and social impacts. GMP will be working with the University of Florida on a three-year project in Escambia County and Santa Rosa County in northwest Florida, focused on strengthening resilience of 12 communities prone to flooding caused by these extreme rain events. The project utilizes EPA's Storm Water Management Model (SWMM), which is informed by local streamflow and water quality data. The SWMM provides a framework for communities, counties and other stakeholders to assess the risks and opportunities to reduce flooding and pollutants through the use of green infrastructure (GI).

Anticipated Results

The project will include a series of 24 public workshops to discuss project findings (data, model results), GI benefits and local examples, and GI scenarios.

Partners

- Pensacola & Perdido Bays Estuary Program
- Santa Rosa County
- Escambia County



Farmer to Farmer

EPA Farmer to Farmer Grants

The GMP office has run two competitive funding opportunities to support projects to improve water quality, habitat and environmental education through farmer-led or farm-focused organizations in the upper and lower Mississippi River basins. EPA has awarded $9,538,552 through 2019 to projects with a variety of partners to show nutrient reduction progress in the Mississippi-Atchafalaya River Basin.

Iowa Department of Agriculture and Land Stewardship

Partners

- City of Cedar Rapids
- City of Cedar Falls
- City of Waterloo
- Iowa State University
- Iowa Corn Growers Association
- Iowa Soybean Association
- Iowa Farm Bureau Federation

Middle Cedar River Targeted Wetland Demonstration Project

This project will build on the portfolio for targeted wetland installations in Iowa to maximize performance for nutrient removal and wetland habitat function and establish a functional wetland delivery model in the Middle Cedar River Basin. Working with both agricultural and urban groups, this project will foster expanded delivery of wetlands on the landscape and disseminate the information necessary to watershed stakeholders to build upon this success.

Pictured from left to right: Danny Wiegand, Doug Jones, Jerry Binninger, Mike Naig (Iowa Ag. Secretary), Jim Gulliford, Alisha Bower & Sarah Carlson (Practical Farmers of Iowa), Dr. Craig Just (University of Iowa), Troy Pierce, Tripp Boone.

Practical Farmers of Iowa

Roots for Water Quality: A Farmer-to-Farmer Model for a Sustainable Mississippi River Basin

Led by Practical Farmers of Iowa's farmer board of directors and farmer membership, this project will equip Iowa farmers with tools to accelerate implementation of cover crops through shifting the tone of mainstream agriculture, doubling the number of cover crop champions, lowering barriers to implementation and measuring a 5% improvement in water quality. This project will train farmers to become "cover crop champions" and compensate them for successfully educating groups and mentoring middle-adopter farmers.

Partner

- Iowa Soybean Association

University of Iowa

Partners

- Iowa Watershed Approach Campaign
- Clear Creek Watershed Coalition

Connecting Rural and Peri-urban Farmers to Demonstrate and Disseminate Innovative Nutrient and Sediment Reduction Practices

This project will focus exclusively on oxbow restorations, alternative tile intakes and nitrogen-removing wetlands/ponds. In addition to improving water quality, the selected practices provide flood storage, which watershed residents have identified as a high priority. To maximize the number of watershed residents who interact with the demonstration sites, we have chosen strategic rural locations near highways and paved county trails, and a 160-acre, peri-urban location on the outskirts of Iowa City.

Delta F.A.R.M.

Farming Systems Research: Demonstrating an Innovative and Scalable Watershed-Based Approach to Advancing Sustainable Agriculture

This project will implement Farming Systems Research (FSR) to evaluate innovative technologies and strategies for Advanced Nutrient Management in Cover Crop – Minimal Tillage (CCMT) systems. The overall aim is to demonstrate an approach to achieving sustainable agriculture that may be scaled to meet local needs for watershed-based implementation. FSR will be integrated with traditional watershed-based planning to engage farmer stakeholders and an interdisciplinary support team in developing and implementing nutrient management strategies and agricultural systems that enhance environmental quality and farm profitability.

Partner

- Mississippi State University

Mississippi State University

Multistate Collaboration to Improve Mississippi River and Gulf of Mexico Water Quality Through Farmer-Led Initiatives and Farmer-Driven Data

This multistate collaborative project will decrease nutrient loss to multiple water bodies within the Mississippi River Basin. Using the robust SERA-46 Cooperative Extension network, members will work directly with farmers to educate and implement Natural Resources Conservation Service and university recommended agricultural conservation practices proven to improve water quality. Farmer-led demonstrations will facilitate information and technology transfer of conservation practices between farmers at multiple scales using transparent and measurable approaches.

Partner

- Delta F.A.R.M.

Southeastern Association of Fish and Wildlife Agencies

Targeted Restoration of Natural Resources Through Innovative Technology, Public Partnerships and Farmer Cooperation in the Chipola River Basin

A recently completed threats assessment of the Apalachicola-Chattahoochee-Flint River Basin will serve as a decision-making tool to guide resource managers and increase enrollment and implementation of agricultural best management practices in critical habitat areas to protect ecosystem function. Site demonstrations, e-news articles and short demonstration videos with regional partners will expand conservation efforts by reaching additional farmers, which will ultimately build capacity in the basin.

Partners

- University of Florida Institute of Food and Agricultural Sciences
- Florida Department of Agriculture and Consumer Services
- Northwest Florida Water Management District
- Chipola River Basin

Winrock International

Farmer-Driven Water Quality Through Conservation Grazing in the Kickapoo River Watershed

This project will use farmer-to-farmer outreach and technical support to increase the adoption of conservation grazing practices, which will increase farmer incomes and improve water quality. The project will generate a cutting-edge land management decision support tool to guide management decisions and use rigorous science to evaluate improvements in water quality.

Partners

- Tainter Creek Farmer-Led Watershed Council
- Local Partners

Natural Resource Damage Assessment

On April 20, 2010, an explosion on the *Deepwater Horizon* Macondo oil well drilling platform tragically killed 11 workers, and started the largest marine oil spill in U.S. history, releasing millions of barrels of oil into the Gulf of Mexico. On April 4, 2016, the court approved a settlement with BP for natural resource injuries stemming from the *Deepwater Horizon* oil spill. This settlement concluded the largest natural resource damage assessment ever undertaken. Under this settlement, BP will pay the four federal and five state Trustees up to $8.8 billion for restoration to address natural resources injuries and lost recreational uses.

Florida Trustee Implementation Group (FL TIG)

The Florida Trustee Implementation Group (FL TIG) is responsible for restoring natural resources and their services within the Florida Restoration Area that were injured by the DWH oil spill. In March 2019, The FL TIG approved a Final Plan 1 and Environmental Assessment, which allocated $61 million for 23 projects that will restore natural resources and/or services injured or lost in Florida as a result of the oil spill. These 23 projects will restore wetlands and coastal and nearshore habitats on federally managed lands, improve water quality and hydrology by reducing sources of pollution and restoring more natural flows, enhance public access to natural resources, and increase recreational opportunities.

Shortly after the publication of the Final Plan 1, the FL TIG initiated restoration planning on a third phase of the Florida Coastal Access Project to enhance public access to natural resources and increase recreational opportunities. The final Phase V.3 Florida Coastal Access Project Final Restoration Plan was published on September 16, 2019. In August 2019, the FL TIG published a request for project ideas for the FL TIG's Restoration Plan 2 that will focus on projects to restore or enhance habitats on federally managed lands, oysters, sea turtles, marine mammals, birds and recreational fishing opportunities.

For more information on the specific projects that were funded by the FL TIG or for more information about the requests for project ideas, please visit: www.gulfspillrestoration.noaa.gov/restoration-areas/florida

As a Trustee, EPA identified its Trustee Implementation Group (TIG) Representatives. GMP staff members serve as primary and alternate EPA Trustee representatives on the TIGs for Alabama, Florida, Mississippi and Region-wide. Supporting the Office of Water lead for NRDA, GMP staff members also provide expertise in the areas of monitoring and adaptive management, and injured species related to oysters and sturgeon. The efforts of the TIGs include developing and implementing restoration plans consistent with the Trustees' Programmatic Restoration Plan, as well as strategic planning for coordinated and larger scale restoration activities. As a result of the NRDA restoration efforts, measurable results-oriented projects are being implemented that have direct Gulf benefit, including: restore and conserve habitat, provide and enhance recreational use, restore water quality, and replenish and protect injured species.

Alabama Trustee Implementation Group (AL TIG)

Restoration work in the Alabama Restoration Area in 2018 focused on restoring and conserving habitat; replenishing and protecting wildlife such as sea turtles, marine mammals, birds and oysters; enhancing recreational opportunities; and restoring water quality. In September 2018, the AL TIG finalized and published its second restoration plan, which allocated approximately $35 million for 22 restoration projects focused on restoring wetlands and coastal and nearshore habitats; improving water quality; restoring sea turtles, marine mammals, birds and oysters; and data collection and analysis.

In early 2019, the AL TIG began work on the development of the third post-settlement restoration plan (Restoration Plan III), which focused on addressing injury to birds and lost recreational use. The AL TIG released the draft Restoration Plan III for public comment on August 29, 2019.

For more information on the specific projects that were funded by the AL TIG, please visit: www.gulfspillrestoration.noaa.gov/restoration-areas/alabama

Mississippi Trustee Implementation Group (MS TIG), Upper Pascagoula Water Quality Enhancement (UPWQE) Project

The UPWQE project is one of three projects funded in the MS TIG first restoration plan as a result of the DWH oil spill. Monitoring is being conducted in Years 1, 3 and 5 of the project in an effort to show the benefits of landowner best management practices being implemented during this project in the Upper Pascagoula River Watershed. In true federal-state Implementing Trustee partnership, USDA is working with landowners on best management practices, EPA is conducting the water quality monitoring and the Mississippi Department of Environmental Quality is analyzing the samples for nutrients. The first year of monitoring was completed in February 2019 to develop a water quality baseline. Monitoring for Year 3 will occur in 2020.

Gulf Coast Ecosystem Restoration Council

Following the catastrophic 2010 *Deepwater Horizon* oil spill, Congress passed the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast Act of 2012 (RESTORE Act). The RESTORE Act established the Gulf Coast Ecosystem Restoration Council (the Council) and the Gulf Coast Restoration Trust Fund. The Council membership includes the governors of the states of Alabama, Florida, Louisiana, Mississippi and Texas, as well as the secretaries of the U.S. Departments of Agriculture, Army, Commerce, Homeland Security and the Interior, and the Administrator for EPA. EPA currently serves as the chair of the Council. If you are interested in reading more about the RESTORE Act or the Council, please visit: www.RestoreTheGulf.gov

On December 9, 2015, the RESTORE Council approved the Initial Funded Priorities List (Initial FPL). Under the Initial FPL, EPA is the implementing member for these four projects:

$2 million

Pensacola & Perdido Bays Estuary Program

EPA executed the interagency funding agreement ($2.2 million) with the Council and then awarded a cooperative agreement ($2.0 million) with Escambia County in September 2018 to establish the Pensacola & Perdido Bays Estuary Program (PPBEP).

The program is being modeled after the structure and operation of National Estuary Programs (NEPs), but will not be designated as an NEP as a result of this funding.

The Management Conference is at the very heart of the PPBEP's success and is composed of members from across the region of northwest Florida and southeast Alabama. The Conference is currently composed of three key committees. The Technical Committee provides expertise to the Policy Board as subject matter experts. The Education Committee guides the Policy Board on PPBEP's interaction and coordination with students, residents and visitors throughout the estuary. Finally, the Economic Committee advises the Policy Board on strategies designed to achieve the program's goals and maintain a robust economic climate.

$2.1 million

Mobile Bay National Estuary Program

EPA awarded a cooperative agreement in FY 2017 to the Mobile Bay National Estuary Program (MBNEP) to design, permit and implement a stream restoration project in Twelve Mile Creek, which has been negatively impacted from excessive stormwater runoff and decaying infrastructure, and to remove invasive species in the Three Mile Creek Watershed. In FY 2018, MBNEP completed the 60% design plan set, including the preliminary technical specifications. MBNEP also submitted the Nationwide Permit 27 application package to the U.S. Army Corps of Engineers, Mobile District (USACE) in November 2018. USACE issued the permit in May 2019. EPA submitted the environmental compliance package, including the USACE permit, and requested an FPL amendment to provide implementation funding. The Council approved the FPL amendment in August 2019. EPA submitted the funding application and expects to complete the interagency funding agreement with the Council and issue funds to MBNEP for implementation in early FY 2020.

Pictured from left to right: Maya Burke, Tampa Bay Estuary Program; Erin Struzzieri, Manatee County Ecological Resources Coordinator; John Bowie, EPA GMP; Damon Moore, Manatee County Division Manager, Ecological and Marine Resources; Amy Newbold, EPA GMP.

Pensacola & Perdido Bays Estuary Program Technical Advisory Committee Meeting, October 2018.

$1.83 million

Tampa Bay Estuary Program RESTORE Project

EPA executed the interagency funding agreement ($1.545 million) with the Council in February 2018 and then awarded a cooperative agreement ($1.46 million) with the Tampa Bay Estuary Program (TBEP) in August 2018 to implement five priority water quality and habitat improvement projects throughout the Tampa Bay Watershed.

The five projects are:

- Biosolids to Energy with the city of St. Petersburg
- Copeland Park Stormwater Enhancements with the city of Tampa
- Coastal Invasive Plant Removal with Hillsborough County
- Robinson Preserve Water Quality and Habitat Restoration with Manatee County
- Ft. De Soto Recirculation and Seagrass Recovery with Pinellas County

During FY 2019, TBEP completed planting to revegetate the circulation cut at Fort De Soto State Park in late 2018, and data monitoring buoys were deployed in the circulation cut in June 2019 to continue monitoring and support modeling efforts. TBEP has been working with Manatee and Hillsborough counties and the cities of St. Petersburg and Tampa to finalize interlocal agreements to advance the other projects.

$2.5 million

Gulf of Mexico Conservation Enhancement Grant Program

The Gulf of Mexico Conservation Enhancement Grant Program (GMCEGP) will enhance public-private partnerships that support land protection and conservation across the Gulf Coast region.

EPA issued a Notice of Funding Opportunity in FY 2018. EPA submitted environmental compliance documentation (NEPA, ESA, NHPA, etc.) to the RESTORE Council for all eight of the projects identified for funding. The Council staff approved the documentation and the Council will amend the FPL to provide interagency implementation funding to EPA. After the Council interagency funding has been secured, EPA will issue the cooperative agreements.

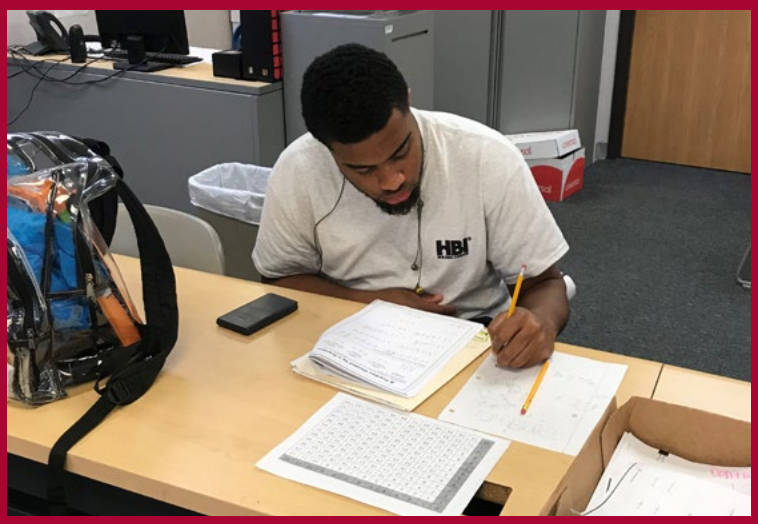
Senior Environmental Employment (SEE)

Through a cooperative agreement with the National Caucus & Center on Black Aging, Inc., GMP employs enrollees of the Senior Environmental Employment (SEE) Program. These enrollees have helped and continue to help GMP with making significant progress in reaching communities and establishing relationships. The work of the enrollees has catapulted education and engagement initiatives leading to resilient communities.

Math Opens Doors

Establishing a good math foundation is easier than it may seem. Individuals are wired differently. Educators, tutors and instructors must understand how to connect to the individual in order to spark an interest and keep the interest charged as challenges present themselves. Math is not just another subject taken in school, it's a way of thinking and understanding how results from math problems affect our life. Math is everywhere!

Some say, "it's a way to train the mind to think." Rather, it's a tool to help create building blocks for everything in our daily lives. Learning math unlocks hidden potential in individuals; the earlier it's unlocked, the more possibilities present themselves in life.



Each year, EPA's math tutoring program helps individuals who are easily frustrated by the subject become less intimidated and better able to tackle and solve mathematical problems. The program allows individuals to explore fun techniques, learn helpful tips and tricks, work at their own pace and develop a growth mindset to stay motivated when math becomes difficult. This program brings structure and trackability into students' goals and objectives. It deepens their readiness for advanced training, career readiness and personal growth. GMP believes opportunities like math tutoring leads to gainful employment, and once employed, a heightened awareness for environmental protection takes place.

Gulf Coast Regional Public Health Summit

Scope of Effort

To engage in dialogue and to educate the public, especially those from vulnerable communities in the Gulf of Mexico region, through a public health lens on issues and concerns applicable to human trafficking, environmental health, human health, health equity and health disparities, and how they continue to impact vulnerable environmental justice communities.

Results

More than 80 attendees participated in the one-and-a-half-day summit held at Mississippi Gulf Coast Community College Hospitality and Tourism Center in Biloxi, Mississippi. Presenters during the summit came from all five Gulf states. Attendees were educated on the impact and effects of human trafficking in communities around the region from a public health lens, and were given information and resources on how to identify and address human trafficking in their communities. Attendees were also given information and resources regarding agencies and organizations that may best be able to assist communities in addressing issues and concerns on a local, state, regional and national level. The conference served as an excellent networking opportunity and prompted conversations about future activities.

Partners

- EPA Region 4 Health and Human Services
- RESTORE Council
- Mississippi Department of Environmental Quality
- University of Southern Mississippi
- Florida A&M University
- Gulfport Job Corps
- One Vision Solutions
- Gulf State Health Policy Center
- Mississippi State Department of Health and Human Services
- Blue Campaign
- Sunny Slaughter Consulting

Sunny Slaughter, Sunny Slaughter Consulting.

Pictured from left to right: Captain Edecia Richards, Region 4 Office of Health and Administration; Danny Patterson, Coalition Coordinator, Gulf States Health Policy Center; Sonja Favors, Environmental Engineering Specialist, Alabama Department of Environmental Management.

Pictured from left to right: Mary Townsend, El Pueblo Nonprofit; Dr. Tamara Hurst, Ph.D., Assistant Professor, USM School of Social Work; Crystal Hay, Walk With Me CDC Nonprofit; Dr. Raoul Richardson, Ph.D., Baheth Labs, University of South Alabama.

Claudette Walker, SEE Enrollee, EPA GMP.

Oak Ridge Institute for Science and Education (ORISE) Participants

The Internship and Research Participation Programs at EPA are managed by the Oak Ridge Institute for Science and Education (ORISE) under an interagency agreement between EPA and the U.S. Department of Energy. The ORISE Internship and Research Participation Programs at EPA are STEM-related educational and training programs designed to provide students, recent graduates and university faculty opportunities to participate in project-specific EPA research and developmental activities.

Colby McClain

Colby McClain has focused on a project to use mind mapping as a tool to assess students' knowledge and understanding of environmental problems. Mind maps are a way of visually organizing associative information and can provide a representation of environmental concerns among students; their thoughts, attitudes or behaviors toward those concerns; possible solutions to those concerns; and their belief in those solutions. In understanding the results of the mind maps, environmental educators can engage in positively responding to the thoughts and feelings of their students. In addition, the project sought to take a student-centered approach to provide students with an opportunity to reflect on environmental problems and empower them to enact change.

Philip Lee

Philip Lee has partnered with Delta F.A.R.M. and researchers from Mississippi State University to examine how different cover crops can impact belowground soil health. This effort was co-led with Tripp Boone, who also worked with Dr. Lee to successfully develop collaborative projects with Poarch Band of Creek Indians and other entities to conduct environmental source tracking analyses via quantitative polymerase chain reaction (qPCR) in the GMP/USM Gulf Community Environmental Lab. In addition to his environmental studies, Philip has worked with local schools to teach kids about scientific careers, conservation and Gulf of Mexico ecosystems. Moving forward, Philip is working on presentations and tools that will help educate and teach organizations more about water monitoring methods such as qPCR in order to help them make better monitoring decisions in the future.

Clarence Nichols

Clarence Nichols is an undergraduate student at the University of Southern Mississippi (USM). While assigned to GMP, he has been involved in several projects focused on water quality. He has studied Enterococcus in the supralittoral zone of recreational beaches along the Mississippi Gulf Coast. He has also gained experience working with quantitative polymerase chain reaction (qPCR) in the collaborative lab shared by USM and GMP. He hopes to continue developing his laboratory skills to examine problems surrounding coastal water quality in the Gulf of Mexico. In the upcoming year he will be leading a project with USM undergraduate students focused on water quality training and data monitoring along Bear Creek Bayou.

Kate Doering

Kate Doering has researched the Quarterly Oyster Project with MS DEQ, the Mississippi Coastal Assessment with MS DEQ and the 2019 Shelf-wide project with Dr. Nancy Rabalais of LSU. These projects have included collection of hydrographic profile data, and collecting and filtering water for PhyloChip, quantitative polymerase chain reaction, nutrient, viral, chlorophyll and IDEXX bacterial testing. The projects also included reading and recording the most probable number for E. coli and Enterococcus samples, and collection of sediment samples for benthic, grain size, organics and metals.

Amy Moody

Amy Moody has been continuing her research of looking at the connection of submarine groundwater discharge (SGD) and low oxygen events in the Mississippi Sound. In order to determine the presence of SGD, radon surveys and beach sampling along the coastline were conducted. This sampling showed that the majority of the SGD is along the western part of the coastline between Bay St. Louis and Biloxi, where historically there have been fish kill events due to low oxygen. We hope to continue this sampling to better correlate the low oxygen and SGD, and in the future want to quantify the water, nutrient and trace metal fluxes to determine the extent of its impacts.

Amanda Parisi

Amanda Parisi has continued training with Mississippi Department of Environmental Quality doing water quality parameters for Mississippi Coastal Assessment and Oyster Quarterly Sampling. She has also worked on the completion of flow direction maps for the Turkey Creek RARE project in collaboration with EPA GED. Amanda is starting a new project in collaboration with Gulfport High School, MSU Extension and Harrison County Beach Authority to increase education awareness among high school students. This project, called PLAN-it, will help students understand the effort that goes into conserving the environment through growing different plant species.

National Academy of Sciences (NAS) Fellowship

The NAS Gulf Research Program's Science Policy Fellowship program helps scientists hone their skills by putting them to practice for the benefit of Gulf Coast communities and ecosystems. Fellows gain firsthand experience at the interface of science and policy as they spend one year assigned to staff of federal, state, local or non-governmental environmental, natural resource, oil and gas, and public health agencies in the Gulf of Mexico region.

Dune Planting Update

GMP partnered with the Harrison County Sand Beach Authority to plant 3,000 sea oats on beaches in Biloxi, Mississippi in March 2019. Students from Gulfport High School, GMP team members and volunteers from local organizations, including Audubon Society, Mississippi Wildlife Federation, MSU Coastal Research and Extension Center and Mississippi Master Naturalists, assisted with planting the sea oats. GMP staff revisited the planting sites in August 2019. The sea oats are thriving and dunes are accumulating sand nicely.

Updates and Events

Celebrate the Gulf

Summary

The Celebrate the Gulf Marine Education Festival, held annually in Pass Christian, Mississippi, collaborates with 70 organizations and more than 200 volunteers. The festival hosts more than 5,000 visitors from Mississippi, Louisiana, Florida and Alabama. All the exhibitors at the festival have an environmental message and are encouraged to have a kid-friendly, hands-on learning activity to encourage an interactive learning environment.

Results

Approximately 300 children/adults visited the exhibit.

Gulf Corps Professional Development

Summary

GMP participated in the Gulf Corps Professional Development Day program to help crew members understand the importance of creating professional resumes/cover letters and to successfully create job site profiles. These crew members are ready to join the workforce, and our job as professionals is to show them how to frame their skills to potential employers and prepare them for the interview process.

Results

100 crew members attended the sessions on creating resumes and cover letters.

Choctaw Jamboree

Summary

The Choctaw Wildlife Jamboree is hosted by the Choctaw Wildlife and Parks Department at Lake Pushmataha, outside Philadelphia, Mississippi. The purpose of the Jamboree is to provide educational and recreational activities to promote wildlife conservation on the Choctaw Indian Reservation and throughout the state of Mississippi. At the event, GMP staff talked about the importance of not littering, being responsible with our trash by recycling when possible, and repurposing products. GMP staff also talked about the impact that litter has on our wildlife and our marine animals.

Results

Approximately 60 children and adults visited the exhibit.

BTNEP Marine Debris Prevention Program

Summary

The Barataria-Terrebonne National Estuary Program (BTNEP) took a group of students from the NOLA Micro Schools in New Orleans to Elmer's Island (near Port Fourchon) in southern Louisiana to participate in a marine debris prevention exercise. Students were taught about the marine debris that could be found on the island and were instructed on how they would participate in an accumulation study. This exercise involved setting up a 100-meter transect, recording and removing all marine debris found in the transects. To create art projects, students picked up additional trash and transported it to school. GMP staff participated in the marine debris removal exercise and collected nurdles—pellet-sized plastic polymers, or the raw material used in the manufacture of plastic products. Nurdles are frequently found in the digestive systems of many marine creatures.

Results

18 students and 2 adults went on this field trip and collected trash.

Gulf Guardian Award Winners

2019 First Place Gulf Guardian Winners

1st Place Business & Industry

Renew Our Rivers Conservation Program
Mississippi Power Co.
Gulfport, Mississippi

Mississippi Power Co.'s Renew Our Rivers program, which is dedicated to removing litter from southeast Mississippi waterways, has been removing debris of every size, shape and description since 2010. A two-time winner of the Gulf Guardian award, the energy company has created partnerships with Gulf Coast businesses, agencies and nonprofit/community groups to capture trash and contaminants from rivers such as the Pascagoula and Wolf; coastal areas such as Discovery Bay, Johnson Bayou, Henderson Point, historic Clermont Harbor and the Bay of St. Louis; and offshore on Deer Island. Since 2012, some 146 tons of debris have been removed.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Tony Smith, MS Power; LaKeshia Robertson, EPA GMP; Vickie Tellis, EPA Region 4.

Pictured from left to right: LaKeshia Robertson, EPA GMP; Cherie, Ronald and Joseph Sandler, Bayou Town Productions.

1st Place Youth Environmental Education

Environmental Education and Outreach Mobile Classroom
Bayou Town Productions LLC
Kiln, Mississippi

Bayou Town Productions' Mobile Classroom brings vital educational activities and materials to schools, libraries, day camps and other learning centers to enhance awareness of and responsibility for water quality stewardship. It offers interactive musical theater performances and hands-on activities, and an online library of lesson plans and other resources for teachers and students. The Mobile Classroom has brought its message of changing behaviors to help prevent nonpoint-source water pollution to more than 130,000 students, educators and community groups. Its study guide offers science, technology, engineering and math (STEM) activities, projects, research, games and links to student websites through government agencies and private groups invested in water quality education.

1st Place Civic/Non-Profit

River, Lakes, Bays 'N Bayous Trash Bash
Texas Conservation Fund/Houston-Galveston Area Council
Houston, Texas

For 25 years, more than 109,000 volunteers have learned the importance of water as a resource by participating in the River, Lakes, Bays 'N Bayous Trash Bash—Texas' largest single-day waterway cleanup. Trash Bash's mission: to promote stewardship of the watershed using hands-on educational tools and developing partnerships with environmental, government and private organizations. Cumulatively, 109,421 volunteers have collected 2,274 tons of trash while cleaning nearly 1,600 miles of shoreline. New promotion methods—including a website, T-shirt art contest, partner activities and social media tools—have increased its reach to new audiences.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Todd Running, Houston-Galveston Area Council; LaKeshia Robertson, EPA GMP; Vickie Tellis, EPA Region 4.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Dr. Christina Simoniello, Gulf of Mexico Coastal Ocean Observing System; LaKeshia Robertson, EPA GMP; Vickie Tellis, EPA Region 4.

1st Place Individual

Dr. Christina Simoniello
Gulf of Mexico Coastal Ocean Observing System Regional Association
St. Petersburg, Florida

Dr. Christina Simoniello has comprehensive knowledge of the Gulf of Mexico and is passionate about education and outreach in the Gulf. She has the capacity to integrate information across disciplines and bring groups together to realize a common vision. She uses her primary role as the Gulf of Mexico Coastal Ocean Observing System Regional Association's education and outreach coordinator to inspire Gulf residents, innovate scientific and educational approaches, and integrate information and resources. She is a visionary in incorporating citizen science data into scientific networks and believes in the power of science education to engender support and stewardship for the Gulf.

1st Place Partnerships

Celebrate the Gulf Marine Education Festival
Mississippi Department of Marine Resources
Biloxi, Mississippi

The annual Celebrate the Gulf Marine Education Festival in Pass Christian, Mississippi, aims to educate residents and visitors about the importance of the Gulf of Mexico. It collaborates with more than 37 environmental groups, which are encouraged to use it to publicize activities related to the wise use, preservation or conservation of our valuable aquatic and marine resources. The booths offer hands-on exhibits, live animal shows, free rides on the historic Biloxi Schooner to experience the Gulf firsthand, and a Student Science Showcase with young scientists presenting projects, a juried environmental art contest and a children's art contest.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Coen Perrott, MS Department of Environmental Quality; Charles Maguire, EPA Region 6; Jessica Rankin, MS Department of Marine Resources; Vickie Tellis, EPA Region 4; Avery Sward, MS Department of Marine Resources; LaKeshia Robertson, EPA GMP; Betty Sparkman, Art in the Pass.

2019 Second Place Gulf Guardian Winners

2nd Place Business & Industry

The Oyster Bed
The Oyster Bed LLC
Hammond, Louisiana

The Oyster Bed LLC is a veteran-owned Louisiana business that routinely gives back to the community to help encourage oyster shell recycling. It manufactures cookware designed for shucked oyster meats, as well as shrimp and other sustainable Gulf seafood. Its mission is to educate people on the food value and ecosystem services that oysters provide to the Gulf of Mexico. One of its goals is to support oyster shell recycling by restaurant chefs and home cooks to help restore the Gulf's oyster reef habitat. It connects with community conservation groups that promote and engage in shell recycling to help raise awareness about the endeavor's importance.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Vickie Tellis, EPA Region 4; Beth Walton, Oyster Bed; Tommy Waller, Oyster Bed; LaKeshia Robertson, EPA GMP.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Dean Chris D'Elia, Louisiana State University; Brian Matherne, Louisiana State University; LaKeshia Robertson, EPA GMP; Vickie Tellis, EPA Region 4.

2nd Place Youth Environmental Education

EnvironMentors Program
Louisiana State University College of the Coast & Environment
Baton Rouge, Louisiana

LSU's EnvironMentors Program helps foster the next generation of STEM workforces; environmental stewards; and informed citizens. This after-school science mentoring initiative pairs underrepresented high school students with LSU graduate and undergraduate student volunteers, who work individually with the high schoolers on a yearlong scientific research project. Top students earn the right to compete at the EnvironMentors National Fair in Washington, D.C. A key outcome is that participants gain confidence in their ability to achieve challenging life goals, to excel at STEM coursework, to understand the workings of the natural environment and to communicate with varying audiences.

2nd Place Civic/Non-Profit

Gulf Star Public-Private Partnership Program
Gulf of Mexico Alliance
Ocean Springs, Mississippi

The Gulf Star program is a public-private partnership of agencies, businesses and nonprofits that supports priorities tied to ecosystems that affect Gulf economies: water quality, coastal resilience, education, stewardship, healthy habitats, ecosystem monitoring, marine debris and sustainable wildlife and fisheries populations. It was established to support the collaboration necessary to accomplish regional projects. Its strategy is to implement a broad spectrum of projects by leveraging federal and private funding—projects too small for restoration investments such as RESTORE or NRDA, but important for foundational science-based decision-making. The projects are leading to a better understanding of the health and productivity of Gulf ecosystems.

Pictured from left to right: Charles Maguire, EPA Region 6; Jim Franks, University of Southern Mississippi; John Tirpak, U.S. Fish & Wildlife Service; Laura Bowie, Gulf of Mexico Alliance; Jim Miller, Freeport-McMoRan; LaKeshia Robertson, EPA GMP; Vickie Tellis, EPA Region 4.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Harriet Perry, University of Southern Mississippi; LaKeshia Robertson, EPA GMP; Vickie Tellis, EPA Region 4.

2nd Place Individual

Harriet Perry
University of Southern Mississippi Gulf Coast Research Laboratory
Ocean Springs, Mississippi

Harriet Perry is a senior research scientist and professor emerita with the Gulf Coast Research Laboratory. For 50 years, she has been an educator, researcher and collaborator in the disciplines of environmental science and aquatic biology. She initiated a blue crab aquaculture program, and has been teaching fishermen how to manage blue crab populations and help them better understand their sampling gear. Her expertise extends to other crab species, such as deep sea crabs. She also was a lead biologist in the testing of mercury/selenium levels of numerous marine and estuarine fish.

2nd Place Partnerships

Gulf TREE
Gulf of Mexico Alliance
Ocean Springs, Mississippi

Gulf TREE was created through a partnership between the Gulf of Mexico Alliance, Climate and Resilience Community of Practice, and the Northern Gulf of Mexico Sentinel Site Cooperative to provide tool selection guidance for natural resource managers, community planners and others targeting climate resilience. It provides an easy-to-use website where users can identify the best tool(s) for their needs and access information and resources. The project's 14-member team, representing the partner organizations and target audiences, has guided it from the initial idea through launch. The team has spent countless hours over two years to ensure its successful implementation.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Christina Mohrman, Gulf of Mexico Alliance; Renee Collini, Northern Gulf of Mexico Sentinel Site Cooperative; Mikaela Heming, Northern Gulf of Mexico Sentinel Site Cooperative; LaKeshia Robertson, EPA GMP; Vickie Tellis, EPA Region 4.

2019 Third Place Gulf Guardian Winners

3rd Place Youth Environmental Education

Training Program for Southern Mississippi Youth in Restoring Critical Habitat for Endangered Species
Land Trust for the Mississippi Coastal Plain
Biloxi, Mississippi

The Land Trust for the Mississippi Coastal Plain created an innovative program in 2017 combining two powerful tools with long- and short-term benefits to this region: habitat restoration and youth engagement. It provided hands-on experience and training and much-needed labor to implement a land management plan for critical habitat. Its purposes included mentoring underserved youth and training them on habitat restoration, mapping gopher tortoise burrows to understand habitat status, removing invasive plant species and restoring longleaf pine habitat. The program primarily took place in Harrison County on a Land Trust site adjacent to De Soto National Forest.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Johnny Marquez, Land Trust for the MS Coastal Plain; Judy Steckler, Land Trust for the MS Coastal Plain; LaKeshia Robertson, EPA GMP; Vickie Tellis, EPA Region 4.

Pictured from left to right: Jim Franks, University of Southern Mississippi; Charles Maguire, EPA Region 6; Vickie Tellis, EPA Region 4; Melissa Pringle, Allen Engineering and Science; Rhonda Price, Department of Marine Resources; LaKeshia Robertson, EPA GMP.

3rd Place Partnerships

Gulf Coast National Heritage Area Nature-Based Tourism Plan for Coastal Mississippi
Mississippi Department of Marine Resources and Allen Engineering and Science
Biloxi, Mississippi

The Nature-Based Tourism Plan for Coastal Mississippi creates an opportunity for tourism growth in the state's Gulf region and offers residents incentives to protect natural heritage and increase resilience. Following the 2010 *Deepwater Horizon* oil spill disaster, the Mississippi Department of Marine Resources in 2016 established a task force of leaders from the six coastal counties and several state agencies to provide guidance. The result was a 10-year strategy for the Mississippi Gulf Coast National Heritage Area. It proposes short-, medium- and long-range goals for strategic planning, marketing and environmental management actions to achieve an optimal balance between tourism growth and conservation.

EPA Awards

National Honor Awards

The EPA National Honor Awards are EPA's highest awards, given to celebrate the extraordinary achievements of EPA employees and their contributions to EPA's mission of protecting human health and the environment.

James W. Craig Pollution Prevention Leadership Award

The GMP Farm Sustainability Team received the James W. Craig Pollution Prevention Leadership Award for their exceptional service and commitment to nutrient reduction, improved water quality and restored habitats.

The team included Matt Beiser, Tripp Boone, Rachel Houge, Gerry Martin, Calista Mills, Amy Newbold, LaKeshia Robertson and Danny Wiegand.

Pictured from left to right: Calista Mills, LaKeshia Robertson, EPA Administrator Andrew Wheeler, Amy Newbold, Tripp Boone, Danny Wiegand.

Established in 1996 in honor of James W. Craig, chief of the Prevention Analysis Branch, Pollution Prevention Division, Office of Pollution Prevention and Toxics, this award is designed to recognize demonstration of exceptional efforts and accomplishments in the advancement of pollution prevention in the agency's core programs. Nominees must have brought about fundamental and sustained improvement in the agency's core programs and processes through the identification and integration of practical pollution prevention solutions to environmental problems. These accomplishments may be achieved through improved project management by fostering new technology or applying administrative enhancements.

Trudy A. Speciner Non-Supervisory Award for Advancing Environmental Protection

Calista Mills received the Trudy A. Speciner Non-Supervisory Award for Advancing Environmental Protection for exceptional work to improve water quality in the Gulf of Mexico.

This award was established in 1982 in honor of Trudy A. Speciner, an environmental protection specialist in the Office of Policy and Resource Management, Office of Prevention, Pesticides, and Toxic Substances, who made outstanding contributions showing unusual analytical ability, creativity and judgment and whose achievements significantly advanced the cause of environmental protection.

Protecting Human Health
and the Environment

GMP | GULF OF MEXICO PROGRAM
www.epa.gov/gulfofmexico

2510 14TH Street, Suite 1212 • Gulfport, MS 39501
(P) 228-679-5915 (F) 228-679-5921